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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/731,228	12/09/2003	Arnold H. Bramnick	BOC9-2003-0042 (413)	4968

40987 7590 09/12/2007
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EXAMINER	
LIOU, ERIC	

ART UNIT	PAPER NUMBER
3628	

MAIL DATE	DELIVERY MODE
09/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/731,228	BRAMNICK ET AL.	
	Examiner	Art Unit	
	Eric Liou	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6,8-19 and 23-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,6,8-19 and 23-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of Claims

1. Applicant has amended claims 1-2, 4, 10-14, 16-17, and 19 and canceled claims 5, 7, and 20-22. Thus, claims 1-4, 6, 8-19, and 23-26 remain pending and are presented for examination.

Response to Arguments

2. Applicant argues Slivka does not teach or suggest determining which passengers among a set of passenger should be selected for rebooking when a commercial airline flight is overbooked, selecting particular passengers from among a larger passenger in a manner that mitigates the financial impact on an airline with an overbooked flight, contemplating the financial impact of selecting one passenger over another. More specifically, Applicant argues Slivka provides no mechanism for choosing which candidate to assign the last available seat on a flight when one available seat on the commercial flight remains and a mechanism for choosing which candidate to rebook when two denied boarding candidates prefer to voluntarily accept an incentive offered to rebook. The Examiner notes, Arthur et al. has been brought in to disclose the above-mentioned limitations. See art rejection below.

3. Applicant argues Slivka does not rank each denied boarding candidate according to financial values for the airlines of each candidate. The Examiner respectfully disagrees. Slivka discloses determining the PNR value based on a calculation that assigns average cents per mile to fares associated with a given booking class (Slivka: paragraph 0037). Slivka further discloses ranking based on the PNR value (Slivka: paragraph 0046).

4. Applicant argues Slivka does not compute financial values based upon lifetime values to the airline of each candidate and corresponding costs of rebooking each candidate. The Examiner respectfully disagrees. Slivka discloses the PNR value is computed while taking into account a frequent flyer status (Slivka: paragraph 0039).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-4, 6, 8-10, 12-19, 23, and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slivka et al., U.S. Publication No. 2003/0225600 in view of Ingram, "Travellers Leave for Portugal after 24-hour Wait for Plane", The Globe and Mail (Canada), June 26, 1986, pg. A21 and further in view of Arthur et al., "Optimal Overbooking", The UMAP Journal 23(3), 2002, pg. 283-300.

7. **As per claims 1, 14, and 16**, Slivka discloses a method, a system, and machine readable storage (Slivka: Figure 1; paragraph 0018) for rebooking passengers when seats on a commercial airline flight flown by a commercial airline are overbooked, comprising the steps of:

storing passenger data for each passenger booked on said flight (Slivka: paragraphs 0032-0034);

determining denied boarding candidates for said flight (Slivka: Fig. 2; paragraph 0036, "Following an airline flight disruption (e.g., operational disruption), an airline entity, travel agent, or other travel based entities, may determine to re-accommodate disrupted passengers.");

for each denied boarding candidate, using said passenger data to compute a cost of rebooking said denied boarding candidates, said rebooking cost being a cost of paying for the denied boarding candidate to travel on a different flight flown by a different commercial airline (Slivka: paragraphs 0007; 0015, "minimizes the provider cost of moving passengers to a different airline"; The Examiner notes, re-accommodating a passenger according to passenger revenue and minimizing the provider cost of moving passengers to a different airline suggests performing the step of computing the cost of a denied boarding candidate to travel on a different flight flown by a different commercial airline.);

for each denied boarding candidate, using said passenger data to compute a lifetime value to the commercial airline of the denied boarding candidate (Slivka: paragraph 0006, "...value established by airlines, ancillary services, and/or commodities, such as hotel and car reservations."; paragraphs 0033-0035);

for each denied boarding candidate, computing a financial value of the denied boarding candidate based upon the lifetime value of the denied boarding candidate and the cost of rebooking the denied boarding candidate (Slivka: paragraphs 0033-0035; 0037-0038);

comparing passenger data for said denied boarding candidates and ranking each denied boarding candidate according to the financial values of each of the denied boarding candidates (Slivka: paragraph 0046, "the PNR list obtained in step 220 may be sorted in a particular order (e.g., descending order) based on PNR value"); and

selecting passengers for said flight based on said financial values (Slivka: paragraph 0046);

8. Slivka does not disclose a cost, including lodging and meals, to accommodate the denied boarding candidate until the denied boarding candidate can be flown on a later flight flown by the commercial airline; the rebooking cost being the lesser of a cost of paying for the denied boarding candidate to travel on a different flight flown by a different commercial airline or a cost, including lodging and meals, to accommodate the denied boarding candidate until the denied boarding candidate can be flown on a later flight flown by the commercial airline; selecting passengers for said flight such that when one available seat on the commercial flight remains and two denied boarding candidates prefer to fly on the commercial flight, the available seat is assigned to the denied boarding candidate having the higher financial value to the commercial airline, and when two denied boarding candidates prefer to voluntarily accept an incentive offered to rebook, the denied boarding candidate having the higher financial value is selected to receive the incentive.

9. Ingram discloses a cost, including lodging and meals, to accommodate the denied boarding candidate until the denied boarding candidate can be flown on a later flight flown by the commercial airline (Ingram: paragraph 0003).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method, system, and machine readable storage of Slivka to have included a cost, including lodging and meals, to accommodate the denied boarding candidate until the denied boarding candidate can be flown on a later flight flown by the commercial airline

as disclosed by Ingram for the advantage of accommodating passengers in a way that provides customer satisfaction.

11. The Examiner notes, Slivka in view of Ingram discloses a cost of paying for the denied boarding candidate to travel on a different flight flown by a different commercial airline and a cost, including lodgings and meals, to accommodate the denied boarding candidate until the denied boarding candidate can be flown on a later flight flown by the commercial airline as described above. Slivka in view of Ingram does not disclose the rebooking cost being the lesser of a cost of paying for the denied boarding candidate to travel on a different flight flown by a different commercial airline or a cost, including lodging and meals, to accommodate the denied boarding candidate until the denied boarding candidate can be flown on a later flight flown by the commercial airline. However, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method, system, and machine readable storage of Slivka in view of Ingram to have included selecting the lesser cost of the two alternatives as the rebooking cost for the advantage of selecting a solution that will benefit a company financially.

12. Slivka in view of Ingram does not disclose selecting passengers for said flight such that when one available seat on the commercial flight remains and two denied boarding candidates prefer to fly on the commercial flight, the available seat is assigned to the denied boarding candidate having the higher financial value to the commercial airline, and when two denied boarding candidates prefer to voluntarily accept an incentive offered to rebook, the denied boarding candidate having the higher financial value is selected to receive the incentive.

13. Arthur discloses selecting passengers for said flight such that when one available seat on the commercial flight remains and two denied boarding candidates prefer to fly on the commercial flight, the available seat is assigned to the denied boarding candidate having the higher financial value to the commercial airline (Arthur: pg. 291, "Compensation Costs", "Airlines often hold auctions for contenders in which the lowest bids are first to be bought off of a flight."; The Examine notes, Arthur discloses compensating passengers that offer the lowest bids but does not disclose applying the auction method to involuntary bumping. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified the involuntary bumping method of Arthur to have included compensating passengers that offer the lowest bids for the advantage of selecting those passengers for compensation in an overbooking situation that is best for the airline financially.), and when two denied boarding candidates prefer to voluntarily accept an incentive offered to rebook, the denied boarding candidate having the higher financial value is selected to receive the incentive (Arthur: pg. 293, "Voluntary Bumping: Auction Methods", "The airline would compensate the passengers who required the least money and require that they give up their seats.").

14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method, system, and machine readable storage of Slivka in view of Ingram to have included selecting passengers for said flight such that when one available seat on the commercial flight remains and two denied boarding candidates prefer to fly on the commercial flight, the available seat is assigned to the denied boarding candidate having the higher financial value to the commercial airline, and when two denied boarding candidates prefer to voluntarily accept an incentive offered to rebook, the denied boarding candidate having the

higher financial value is selected to receive the incentive as disclosed by Arthur for the advantage of selecting those passengers for compensation in an overbooking situation that is best for the airline financially.

15. **As per claims 2 and 17**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claims 1 and 16 as described above. Slivka further discloses the passenger data comprises a frequent flyer status of the passenger (Slivka: Table 1; paragraph 0024, "rules engine 113 may associate a data code reflecting a type of travel status of a passenger, such as a frequent flyer status."; paragraphs 0033-0035).

16. **As per claims 3, 15, and 18**, Slivka in view of Ingram and further in view of Arthur discloses the method, system, and machine readable storage of claims 1, 14, and 16 as described above. Slivka further discloses passenger data is passenger financial data (Slivka: paragraphs 0033-0035; 0037-0038).

17. **As per claims 4 and 19**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claims 3 and 18 as described above. Slivka further discloses passenger financial data comprises a remaining flight ticket value of each denied boarding candidate (Slivka: paragraphs 0035; 0037-0038).

18. **As per claim 6**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claim 3 as described above. Slivka further discloses passenger financial data comprises passenger lifetime value data (Slivka: paragraph 0006, "...value established by airlines, ancillary services, and/or commodities, such as hotel and car reservations."; 0033-0035; 0037-0038).

19. **As per claims 8**, Slivka in view of Ingram and further in view of Arthur discloses the method of claim 1 as described above. Slivka in view of Ingram does not disclose said denied boarding candidates are volunteers.

20. Arthur discloses said denied boarding candidates are volunteers (Arthur: pg. 293-296)

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method of Slivka in view of Ingram and further in view of Arthur to have included said denied boarding candidates are volunteers as disclosed by Arthur for the advantage of helping to overcome an airline overbooking situation.

22. **As per claim 9**, Slivka in view of Ingram and further in view of Arthur discloses the method of claim 1 as described above. Slivka further discloses the denied boarding candidates are involuntary (Slivka: paragraph 0014, due to an operational disruption).

23. **As per claims 10 and 23**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claims 1 and 16 as described above. Slivka further discloses the comparing step comprises applying a predetermined a set of rules (Slivka: paragraphs 0024-0026).

24. **As per claims 12 and 25**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claims 1 and 23 as described above. Slivka further discloses the ranking comprises arranging said passengers according to passenger frequent flyer status (Slivka: paragraph 0024, "rules engine 113 may associate a data code reflecting a type of travel status of a passenger, such as a frequent flyer status."; paragraph 0026, "...rules that rank certain types of passengers.").

25. **As per claims 13 and 26**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claims 1 and 23 as described above. Slivka further discloses the ranking comprises said passengers according to passenger lifetime value data (Slivka: paragraphs 0037-0038; 0046).

26. Claims 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slivka et al., U.S. Publication No. 2003/0225600 in view of Ingram, "Travellers Leave for Portugal after 24-hour Wait for Plane", The Globe and Mail (Canada), June 26, 1986, pg. A21 in view of Arthur et al., "Optimal Overbooking", The UMAP Journal 23(3), 2002, pg. 283-300 and further in view of Boies et al., U.S. Publication No. 2002/0082878.

27. **As per claims 11 and 24**, Slivka in view of Ingram and further in view of Arthur discloses the method and machine readable storage of claims 10 and 23 as described above. Slivka in view of Ingram and further in view of Arthur does not disclose arranging passengers according to a descending revenue impact to the airline.

28. Boies teaches arranging passengers according to a descending revenue impact to the airline (Boies: Fig. 4, "430" - The Examiner notes, passengers are arranged by seat class or in descending revenue impact to the airline.).

29. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the method and machine readable storage of Slivka in view of Ingram and further in view of Arthur to have included arranging passengers according to a descending revenue impact to the airline as disclosed by Boies for the advantage of reassigning

passengers to different seats within their guaranteed category of seating in order to satisfy a subsequent passenger's request (Boies: paragraph 0008).

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

The Examiner has cited particular portions of the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the Applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric Liou whose telephone number is 571-270-1359. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on 571-272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

EL

JOHN W. HAYES
SUPERVISORY PATENT EXAMINER